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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,921	09/16/2004	Noriyuki Komori	1190-0598PUS1	6788
2292 7590 04/11/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER RAMAKRISHNANAH, MELUR				
ART UNIT 2614		PAPER NUMBER		
NOTIFICATION DATE 04/11/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/507,921

Applicant(s)

KOMORI ET AL.

Examiner

Melur Ramakrishnaiah

Art Unit

2614

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 9-12, 15-21, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9-12, 15-21, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2-28-2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 7, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro (JP2001-320461) in view of Reference 2 (CN2400833Y).

Regarding claim 1, Yasuhiro discloses a cellular phone equipped with a camera which can take a moving picture of a subject, the cellular phone with a built in camera comprising: a lighting device (Drawing 4) for lighting a subject by means of a lighting emitting diode (3, Drawing 4), a switching device (41, Drawing 3) for turning on the lighting device, a light distribution lens (reads on 31, Drawing 5) for condensing light radiated from the lighting device, toward the subject, a transparent cover (1, Drawing 4) for protecting the light distribution lens, the transparent cover being disposed on a subject side, of the lighting device (Paragraphs: 0018-0019; 0014; 0022-0023;0027).

Yasuhiro differs from claim 1 in that he does not specifically teach: the lighting device is provided with a component having a side orthogonal to light emitted from the light emitting diode and allowing light emitted from light emitting diode to pass through and having an optical diffusion portion disposed on at least the orthogonal side for diffusing light.

However, Reference 2 teaches the following: the lighting device is provided with a component having a side orthogonal to light emitted from the light emitting diode and

allowing light emitted from light emitting diode to pass through and having an optical diffusion portion (plate 3, fig. 2) disposed on at least the orthogonal side for diffusing light (page 3, lines 14-23 and fig. 2 of Reference 2: see applicant provided Chinese office action with partial English translational of the same).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Yasuhiro's system to provide for the following: the lighting device is provided with a component having a side orthogonal to light emitted from the light emitting diode and allowing light emitted from light emitting diode to pass through and having an optical diffusion portion disposed on at least the orthogonal side for diffusing light as this arrangement would provide means for managing light emissions to suite application requirements.

Regarding claims 5 and 7, Yasuhiro further teaches the following: transparent cover (1, Drawing 4) is formed of an integral part of a protection cover of component for producing a visual effect on the user of the cellular phone with a built-in camera, the lighting member is provided with a film like member (Drawing 5) of which front-to-back optical transmittance is lower than back-to-front optical transmittance, on a subject side, which is front side, of the light-emitting diode (Paragraphs: 0018-0019; 0014; 0022-0023;0027).

Yasuhiro differs from claims 9-12 in that he does not specifically teach: lighting device is provided with an optical diffusion plate with an optimal diffusion layer on the subject side, in front of the light-emitting diode, the light emitting device is provided with an optical diffusion plate with an optical diffusion layer disposed on the light-emitting

diode, in front of the light-emitting diode, the lighting device has an optical diffusion layer on the side of the light emitting diode of the optical diffusion plate on the subject side of the optical diffusion plate, the optical diffusion plate is formed in such a manner that an angle of light diffusion in a peripheral region becomes smaller than around an optical axis of the light-emitting diode.

However, Reference 2 teaches the following: lighting device is provided with an optical diffusion plate (3, fig. 2) with an optimal diffusion layer on the subject side, in front of the light-emitting diode, the light emitting device is provided with an optical diffusion plate with an optical diffusion layer disposed on the light-emitting diode, in front of the light-emitting diode, the lighting device has an optical diffusion layer on the side of the light emitting diode of the optical diffusion plate on the subject side of the optical diffusion plate, the optical diffusion plate is formed in such a manner that an angle of light diffusion in a peripheral region becomes smaller than around an optical axis of the light-emitting diode (page 3, lines 14-23 and fig. 2 of Reference 2: see applicant provided Chinese office action with partial English translational of the same).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Yasuhiro's system to provide for the following: lighting device is provided with an optical diffusion plate with an optimal diffusion layer on the subject side, in front of the light-emitting diode, the light emitting device is provided with an optical diffusion plate with an optical diffusion layer disposed on the light-emitting diode, in front of the light-emitting diode, the lighting device has an optical diffusion layer on the side of the light emitting diode of the optical diffusion plate on the subject side of

the optical diffusion plate, the optical diffusion plate is formed in such a manner that an angle of light diffusion in a peripheral region becomes smaller than around an optical axis of the light-emitting diode as this arrangement would provide means for managing light emissions to suite application requirements.

3. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro in view of Reference 2 as applied to claim 1 above, and further in view of Tatsuya et al. (JP07064207, hereinafter Tatsuya).

The combination differs from claim 2 in that he does not teach the following: light distribution lens comprises a supporting member that is mounted on the lighting device and supports the light distribution lens.

However, Tatsuya discloses linear light source which teaches the following: light distribution lens comprises a supporting member that is mounted on the lighting device and supports the light distribution lens (fig. 2, see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: light distribution lens comprises a supporting member that is mounted on the lighting device and supports the light distribution lens as this arrangement would facilitate to support lens system as taught by Tatsuya.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro in view of Reference 2 and Tatsuya as applied to claim 2 above, and further in view of Masato (JP2000089318A).

The combination differs from claim 4 in that he does not specifically teach the following: the transparent cover has a convex lens portion having a condensing function and light distribution lens is also provided.

However, Masato discloses a lens system (10, fig. 1) integrally molded of a transparent synthetic resin so as to be close on the front side of the light emission diode (4, fig. 1, see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: the transparent cover has a convex lens portion having a condensing function and light distribution lens is also provided as this arrangement would provide means for directing the light properly on the subject of the photograph.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro in view of Reference 2 as applied to claim 1 above, and further in view of Masato.

The combination differs from claims 3-4 in that he does not specifically teach the following: transparent cover has a convex lens portion formed to provide a condensing function of the light distribution lens.

However, Masato discloses a lens system (10, fig. 1) integrally molded of a transparent synthetic resin so as to be close on the front side of the light emission diode (4, fig. 1, see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: transparent cover has a convex lens portion formed to provide a condensing function of the light

distribution lens as this arrangement would provide means for directing the light properly on the subject of the photograph.

6. Claims 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro in view of Reference 2 as applied to claim 1 above, and further in view of Hiroshi (JP2001033851).

The combination differs from claims 15-21 in that he does not teach the following: the lighting device has the light emitting diode mounted on a printed circuit board, and the lighting device comprises a reflection portion having a highly reflective surface, at least around the light emitting diode on a surface of a printed circuit board where the light emitting diode is mounted, the reflection portion is formed on the printed circuit board by printing, the reflection portion is formed by fixing a film-like member having a highly reflective surface to the printed circuit board, the reflection portion is formed by fixing a structure which is shaped to encloses at least a part of the light-emitting diode and has a highly reflective surface on the side of the subject, on the printed circuit board, the structure of the reflection portion is formed with a resin of highly reflective color such as white, yellow, silver or gold, a surface of at least the subject side of the structure of the reflection portion is formed by coating in white, yellow, silver, or gold which is highly reflective color, the structure of the reflection portion has a surface formed of a metal film formed by evaporation or coating on at least one side of the subject.

However, Masato teaches an arrangement for light emitting diodes being fixed to the printed circuit board to provide illumination to facilitate camera to take pictures (fig.

1, see abstract) and Hiroshi teaches an arrangement with reflector (111, fig. 4) to efficiently utilize light quantity (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: the lighting device has the light emitting diode mounted on a printed circuit board, and the lighting device comprises a reflection portion having a highly reflective surface, at least around the light emitting diode on a surface of a printed circuit board where the light emitting diode is mounted, the reflection portion is formed on the printed circuit board by printing, the reflection portion is formed by fixing a film-like member having a highly reflective surface to the printed circuit board, the reflection portion is formed by fixing a structure which is shaped to encloses at least a part of the light-emitting diode and has a highly reflective surface on the side of the subject, on the printed circuit board, the structure of the reflection portion is formed with a resin of highly reflective color such as white, yellow, silver or gold, a surface of at least the subject side of the structure of the reflection portion is formed by coating in white, yellow, silver, or gold which is highly reflective color, the structure of the reflection portion has a surface formed of a metal film formed by evaporation or coating on at least one side of the subject as this arrangement would provide one of the methods, among many possible methods to properly manage light source for required applications.

7. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhiro in view of Reference 2 as applied to claim 1 above, and further in view of Kerai et al. (US PAT: 6,518,993, filed 3-12-2001, hereinafter Kerai).

The combination differs from claims 25-26 in that he does not teach the following: the lighting device is provided with a plug which allows an electrical and mechanical connection to the cellular phone with a built in camera, and the main unit of the cellular phone with a built in camera has a jack to which plug can be detachably connected, a plug which allows an electrical and mechanical connection with the jack of the lighting device in the cellular phone with a built in camera.

However, Kerai discloses mobile imaging which teaches attaching modules such as camera to the cellular telephone by providing necessary connector plug (14, figs. 2A, 2B, col. 3, line 42 – col. 4, line 20).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: the lighting device is provided with a plug which allows an electrical and mechanical connection to the cellular phone with a built in camera, and the main unit of the cellular phone with a built in camera has a jack to which plug can be detachably connected, a plug which allows an electrical and mechanical connection with the jack of the lighting device in the cellular phone with a built in camera as this arrangement would provide one possible way, among many possible ways, of connecting devices to the cellular telephone as taught by Kerai.

Response to Arguments

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melur Ramakrishnaiah/
Primary Examiner, Art Unit 2614